



XIV M.Sc. Course in Wildlife Science (2013-2015)
National Entrance Test (NET)

Section 2: Multiple Choice Questions on Wildlife Biology

Maximum Marks: 40
Time Allotted: 50 minutes

PLEASE PUT A TICK MARK ON THE CORRECT ANSWER

Q1. The risk to wild species of plants and animals of becoming endangered or extinct and the loss of genetic diversity of cultivated plants and domesticated animals are primarily due to:

- a) Overpopulation and poor environmental decisions on the part of *Homo sapiens*
- b) The natural evolution of plants and animals
- c) The prevalence of disease-causing pathogens
- d) The cause is unknown

Q2. Which of the following situation might create a population bottleneck?

- a) A small number of animals migrating from one geographic location to another, leaving behind the rest of the population
- b) Overhunting or overfishing of particular species over a short period of time
- c) Natural disaster that leave behind a fraction of a population
- d) All of above statements describe situations that may lead to a population bottleneck

Q3. In many animal species, the probability that a female reproduces in a breeding season is reduced at high population densities compared with low population densities. The most likely explanation of this pattern is that:

- a) At high densities, females cooperate and reduce reproduction so that the habitat is not destroyed by over use
- b) At high densities, females are less likely to reproduce because sufficient food may not be available to successfully produce offspring.
- c) At high densities, females reduce their reproduction to prevent population extinction from starvation
- d) At high densities, females may not be able to find mates and therefore show reduced fecundity

Q4. Allopatric speciation occurs in?

- a) A segment of some population
- b) Geographically isolated population
- c) Coming together of two isolated populations
- d) A segments of species in which mutation has occurred

Q5. In mammals, the heart and lung are separated from stomach and intestine by a muscular portion called

- a) Small intestine
- b) Large intestine
- c) Diaphragm
- d) Rumen

Q6. Endozoochory involves

- a) Animal digestion and assimilation of diaspores
- b) Animal ingestion, digestion and egestion of diaspores
- c) Animal ingestion and multiplication of diaspores
- d) Animal external transport of diaspores

Q7. Co- evolution is exemplified by

- a) Ferns and bees
- b) Ferns and wasps
- c) Figs and bees
- d) Figs and wasps

Q8. Pollination by bats and insects are respectively referred as

- a) Malacophily and Sphingophily
- b) Anemophily and Hydrophily
- c) Entomophily and Chiropterophily
- d) Chiropterophily and Entomophily

Q9. If a man of blood group AB marries a woman of blood group A whose father was of blood group O, to what different blood groups can be expected for their children?

- a) A, AB, O, B
- b) A, B, AB
- c) AB, O
- d) A, B, O

Q10. Sexual selection involves

- a) Fighting for the right to mate
- b) Acquiring characteristics that improve chances for mating
- c) Social factors that may outweigh ecological factors
- d) All of the above

Q11. Malignant catarrhal fever in wild ruminants is caused by

- a) Bacterial agent
- b) Viral infections
- c) Fungal infections
- d) None of the above

Q12. Variation in nature is caused by

- a) Acquired characters
- b) Mutations
- c) Mortality
- d) Natality

Q13. Bergmann's rule is

- a) The propensity to mate with others of like phenotypes
- b) The tendency for limbs and extremities to become shorter and more compact in colder climates
- c) The tendency for organisms in colder climates to have a larger body size
- d) The tendency for organisms in colder climates to have smaller body size.

Q14. Theory of Island Biogeography was proposed by

- a) Daniel Simberloff and Edward O. Wilson
- b) Bruce Wilcox and Michael E. Soulé
- c) Alfred Wallace and Paul R. Ehrlich
- d) Robert MacArthur and Edward O. Wilson

Q15. The increasing concentration of a substance, such as a toxic chemical, in the tissues of organisms at successively higher levels in a food chain is called:

- a) Cascade effect
- b) Biomagnification
- c) Nutrient Cycle
- d) Trophic Mutualism

Q16. Disease responsible for extensive decline in amphibian populations is:

- a) Chytridiomycosis
- b) Aspergillosis
- c) White nose syndrome
- d) Tinea versicolor

Q17. Which of the following features is typical of Tropical Wet Evergreen trees?

- a) Buttress
- b) Cauliflory
- c) Shallow roots
- d) Thick bark

Q18. Natural transition between Teak and Sal is found in:

- a) Bihar
- b) Rajasthan
- c) Gujarat
- d) Madhya Pradesh

Q19. With respect to bird migration, India is in

- a) East Asian flyway
- b) Central Asian flyway
- c) Pacific flyway
- d) Atlantic flyway

Q20. Of the sixteen forest types identified in India by Champion and Seth (1968), the major percentage of forest cover is formed by:

- a) Tropical Moist Deciduous forests
- b) Tropical dry deciduous forests
- c) Tropical wet evergreen forests
- d) Tropical dry evergreen forests

Q21. In forestry, Site Index for measuring for Site Quality is primarily determined on the basis of

- a) Girth of dominant trees in a mature crop
- b) Basal area of dominant trees in a mature crop
- c) Height of dominant trees in a mature crop
- d) Important valued index of the mature crop

Q22. Batesian mimicry refers to the form of mimicry where

- a) A dangerous species mimics a harmless species
- b) One harmless species mimics another harmless species
- c) A harmless species mimics a dangerous species
- d) One dangerous species mimics another dangerous species

Q23. An optimally foraging animal is foraging in a habitat where food occurs as patches. Let us assume that the animal has perfect information about the environment and that there are no costs to moving between patches. The animal would then be expected to move from one patch to the next when:

- a) The habitat as a whole is very poor in resources
- b) No prey items are left in patch 1
- c) When there are fewer prey items in patch 1 than the average for the habitat
- d) When the habitat average for prey items is high

Q24. Population birth sex ratio should typically be:

- a) Balanced
- b) Strongly female biased
- c) Strongly male biased
- d) Unpredictable

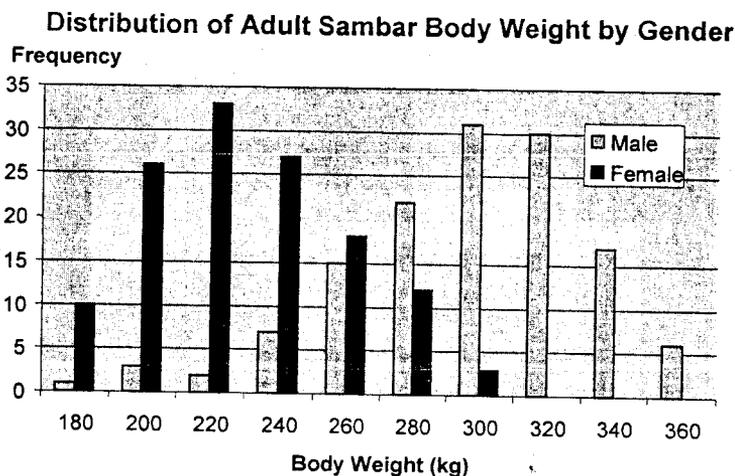
Q25. One of the important causes of decline in vulture population in India

- a) Diclofenac toxicity
- b) Coccidiosis
- c) New Castle Disease
- d) DDT

Q26. Appearance of albumin in the urine is indication of impairment of

- a) Liver
- b) Kidney
- c) Heart
- d) Lung

Q27. Given below is a frequency distribution of body weights of a sample of adult male and female Sambar deer. Making reference to this graph, answer the following question:



Which gender of Sambar deer has a higher mean body weight?

- a) Male
- b) Female
- c) They have equal mean body weight
- d) Cannot be determined with the information provided

Q28. Which subspecies of tiger is facing imminent danger of extinction?

- a) *Panthera tigris corbetti*
- b) *Panthera tigris balica*
- c) *Panthera tigris sondaica*
- d) *Panthera tigris varigata*

Q29. Given below are the species compositions in four forest patches. Each species has been given a different unique number (i) 41, 40, 42, 44, 45, 31, 48 (ii) 32, 33, 41, 42, 43, 39 (iii) 54, 53, 52 (iv) 31, 32, 45, 33, 39. Which minimum combination of patches would you chose to include all species?

- a) I, II, and IV
- b) I, III, and IV
- c) I, II, and III
- d) All four patches

Q30. Manas river forms the distribution limit of which of these two primate species-

- a) *Trachypithecus pileatus* and *T. phayrei*
- b) *T. pileatus* and *Macaca assamensis*
- c) *T. pileatus* and *T. geei*
- d) *T. geei* and *T. phayrei*

Q31. Which one of the following species is endemic to Indian Subcontinent?

- a) Sambar
- b) Barking deer
- c) Nilgai
- d) Serow

Q32. Species resistant to FMD is

- a) Pig (*Sus scrofa*)
- b) Horse (*Equus ferus caballus*)
- c) Elephant (*Elephas maximus*)
- d) Musk deer

Q33. Gene flow is a concept best used to describe an exchange between

- a) Individuals
- b) Male and females
- c) Species
- d) Populations

Q34. The "genetic load" is defined as

- a) The amount of genetic variation in a population
- b) The percentage of advantageous alleles carried by a population
- c) The percentage of advantageous alleles carried by an individual
- d) The number of deleterious alleles found segregating in a population

Q35. The use of living plants to degrade the environmental pollutants is known as

- a) Phytoremediation
- b) Remediation
- c) Bioremediation
- d) None of the above

Q36. Four Biodiversity hot spots in Indian subcontinent include

- a) Western Ghats-Sri Lanka, Indo Burma, Sundaland and Himalayas
- b) Eastern Ghats, Aravallis, Andaman and Nicobar
- c) Coromandel coast, Gangetic plains, Maldives and Andaman
- d) Sundarbans, Point Calimere, Vedanthangal and Vembanad

Q37. In Conservation Breeding Programme pairing of animals for breeding is done based on which factor?

- a) Mean kinship value
- b) Gene diversity
- c) Homozygosity
- d) Reproductive potential

Q38. The protozoan infection that causes serious problem in wild carnivores is:

- a) Clostridial infection
- b) Salmonella infection
- c) Hemoprotozoal infection
- d) Trypanosomosis

Q39. When *Drosophila* were exposed to a particular odour and electric shock at the same time, they started to avoid the odour. This is an example of

- a) Classical conditioning
- b) Operant conditioning
- c) Imprinting
- d) Habituation

Q40. Which one of the following mechanism can cause a gene to move from one linkage group to another?

- a) Translocation
- b) Inversion
- c) Crossing over
- d) Duplication
